an explanation of the corrective actions taken, and when the cause of the exceedance was corrected.

(e) *Excess emissions report.* As required by §63.10(e)(3)(v) of this part, the owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in §63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period.

### §63.1387 Compliance dates.

(a) *Compliance dates.* The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than:

(1) June 14, 2002, for an existing glass-melting furnace, rotary spin manufacturing line, or flame attenuation manufacturing line; or

(2) Upon startup for a new glass-melting furnace, rotary spin manufacturing line, or flame attenuation manufacturing line.

(b) *Compliance extension.* The owner or operator of an existing source subject to this subpart may request from the Administrator an extension of the compliance date for the emission standards for one additional year if such additional period is necessary for the installation of controls. The owner or operator shall submit a request for an extension according to the procedures in §63.6(i)(3) of this part.

### §§63.1388—63.1399 [Reserved]

TABLE 1 TO SUBPART NNN OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS (40 CFR PART 63, SUBPART A) TO SUBPART NNN

| General provisions citation | Requirement | Applies to subpart NNN | Explanation |
|---|---|---|---|
| 63.1(a)(1)–(a)(4) | Applicability | Yes. | |
| 63.1(a)(5) | | No | [Reserved]. |
| 63.1(a)(6)–(a)(8) | | Yes. | |
| 63.1(a)(9) | | No | [Reserved]. |
| 63.1(a)(10)–(a)(14) | | Yes. | |
| 63.1(b)(1)–(b)(3) | Initial Applicability Determination | Yes. | |
| 63.1(c)(1)–(c)(2) | Applicability After Standard Established | Yes. | |
| 63.1(c)(3) | | No | [Reserved]. |
| 63.1(c)(4)–(c)(5) | | Yes. | |
| 63.1(d) | | No | [Reserved]. |
| 63.1(e) | Applicability of Permit Program | Yes. | |
| 63.2 | Definitions | Yes | Additional definitions in § 63.1381. |
| 63.3(a)–(c) | Units and Abbreviations | Yes. | |
| 63.4(a)(1)–(a)(3) | Prohibited Activities | Yes. | |
| 63.4(a)(4) | | No | [Reserved]. |
| 63.4(a)(5) | | Yes. | |
| 63.4(b)–(c) | | Yes. | |
| 63.5(a)(1)–(a)(2) | Construction/Reconstruction | Yes. | |
| 63.5(b)(1) | Existing, New, Reconstructed | Yes. | |
| 63.5(b)(2) | | No | [Reserved]. |
| 63.5(b)(3)–(b)(6) | | Yes. | |
| 63.5(c) | | No | [Reserved]. |
| 63.5(d) | Approval of Construction/Reconstruction | Yes. | |
| 63.5(e) | | Yes. | |
| 63.5(f) | | Yes. | |
| 63.6(a) | Compliance with Standards and Maintenance Requirements. | Yes. | |
| 63.6(b)(1)–(b)(5) | | Yes. | |
| 63.6(b)(6) | | No | [Reserved]. |
| 63.6(b)(7) | | Yes. | |
| 63.6(c)(1) | Compliance Date for Existing Sources | Yes | §63.1387 specifies compliance dates. |
| 63.6(c)(2) | | Yes. | |
| 63.6(c)(3)–(c)(4) | | No | [Reserved]. |
| 63.6(c)(5) | | Yes. | |
| 63.6(d) | | No | [Reserved]. |
| 63.6(e)(1)–(e)(2) | Operation & Maintenance | Yes | § 63.1383 specifies operations/maintenance plan. |
| 63.6(e)(3) | Startup, Shutdown Malfunction Plan | Yes. | |
| 63.6(f)(1)–(f)(3) | Compliance with Nonopacity Emission Standards. | Yes. | |
| 63.6(g)(1)–(g)(3) | Alternative Nonopacity Standard | Yes. | |
| 63.6(h) | Opacity/VE Standards | No | Subpart NNN-no COMS, VE or opacity standards. |
| 63.6(i)(1)–(i)(14) | Extension of Compliance | Yes. | |
| 63.6(i)(15) | | No | [Reserved]. |
| 63.6(i)(16) | | Yes. | |
| 63.6(j) | Exemption from Compliance | Yes. | |

TABLE 1 TO SUBPART NNN OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS (40 CFR PART 63, SUBPART A) TO SUBPART NNN—Continued

| General provisions citation | Requirement | Applies to subpart NNN | Explanation |
|---|---|---|---|
| 63.7(a) | Performance Testing Requirements | Yes | §63.1384 has specific requirements. |
| 63.7(b) | Notification | Yes. | |
| 63.7(c) | Quality Assurance Program/Test Plan | Yes. | |
| 63.7(d) | Performance Testing Facilities | Yes. | |
| 63.7(e)(1)–(e)(4) | Conduct of Performance Tests | Yes. | |
| 63.7(f) | Alternative Test Method | Yes. | |
| 63.7(g) | Data Analysis | Yes. | |
| 63.7(h) | Waiver of Performance Tests | Yes. | |
| 63.8(a)(1)–(a)(2) | Monitoring Requirements | Yes. | |
| 63.8(a)(3) | | No | [Reserved]. |
| 63.8(a)(4) | | Yes. | |
| 63.8(b) | Conduct of Monitoring | Yes. | |
| 63.8(c) | CMS Operation/Maintenance | Yes. | |
| 63.8(d) | Quality Control Program | Yes. | |
| 63.8(e) | Performance Evaluation for CMS | Yes. | |
| 63.8(f) | Alternative Monitoring Method | Yes. | |
| 63.8(g) | Reduction of Monitoring Data | Yes. | |
| 63.9(a) | Notification Requirements | Yes. | |
| 63.9(b) | Initial Notifications | Yes. | |
| 63.9(c) | Request for Compliance Extension | Yes. | |
| 63.9(d) | New Source Notification for Special Compliance Requirements. | Yes. | |
| 63.9(e) | Notification of Performance Test | Yes. | |
| 63.9(f) | Notification of VE/Opacity Test | No | Opacity/VE tests not required. |
| 63.9(g) | Additional CMS Notifications | Yes. | |
| 63.9(h)(1)–(h)(3) | Notification of Compliance Status | Yes. | |
| 63.9(h)(4) | | No | [Reserved]. |
| 63.9(h)(5)–(h)(6) | | Yes. | |
| 63.9(i) | Adjustment of Deadlines | Yes. | |
| 63.9(j) | Change in Previous Information | Yes. | |
| 63.10(a) | Recordkeeping/Reporting | Yes. | |
| 63.10(b) | General Requirements | Yes. | |
| 63.10(c)(1) | Additional CMS Recordkeeping | Yes. | |
| 63.10(c)(2)–(c)(4) | | No | [Reserved]. |
| 63.10(c)(5)–(c)(8) | | Yes. | |
| 63.10(c)(9) | | No | [Reserved]. |
| 63.10(c)(10)–(15) | | Yes. | |
| 63.10(d)(1) | General Reporting Requirements | Yes. | |
| 63.10(d)(2) | Performance Test Results | Yes. | |
| 63.10(d)(3) | Opacity or VE Observations | No | No limits for VE/opacity. |
| 63.10(d)(4) | Progress Reports | Yes. | |
| 63.10(d)(5) | Startup, Shutdown, Malfunction Reports | Yes. | |
| 63.10(e)(1)–(e)(3) | Additional CMS Reports | Yes. | |
| 63.10(e)(4) | Reporting COM Data | No | COM not required. |
| 63.10(f) | Waiver of Recordkeeping/Reporting | Yes. | |

| | | | |
|---|---|---|---|
| 63.11(a) | Control Device Requirements | Yes. | Flares not applicable. |
| 63.11(b) | Flares | No | |
| 63.12 | State Authority and Delegations | Yes. | |
| 63.13 | State/Regional Addresses | Yes. | |
| 63.14 | Incorporation by Reference | No. | |
| 63.15 | Availability of Information | Yes. | |

## APPENDIX A TO SUBPART NNN OF PART 63—METHOD FOR THE DETERMINATION OF LOI

*1. Purpose*

The purpose of this test is to determine the LOI of cured blanket insulation. The method is applicable to all cured board and blanket products.

*2. Equipment*

2.1 Scale sensitive to 0.1 gram.
2.2 Furnace designed to heat to at least 540 °C (1,000 °F) and controllable to ±10 °C (50 °F).
2.3 Wire tray for holding specimen while in furnace.

*3. Procedure*

3.1 Cut a strip along the entire width of the product that will weigh at least 10.0 grams. Sample should be free of dirt or foreign matter.

NOTE: Remove all facing from sample.

3.2 Cut the sample into pieces approximately 12 inches long, weigh to the nearest 0.1 gram and record. Place in wire tray. Sample should not be compressed or overhang on tray edges.

NOTE: On air duct products, remove shiplaps and overspray.

3.3 Place specimen in furnace at 540 °C (1,000 °F), ±10 °C (50 °F) for 15 to 20 minutes to insure complete oxidation. After ignition, fibers should be white and should not be fused together.
3.4 Remove specimen from the furnace and cool to room temperature.
3.5 Weigh cooled specimen and wire tray to the nearest 0.1 gram. Deduct the weight of the wire tray and then calculate the loss in weight as a percent of the original specimen weight.

## APPENDIX B TO SUBPART NNN OF PART 63—FREE FORMALDEHYDE ANALYSIS OF INSULATION RESINS BY HYDROXYLAMINE HYDROCHLORIDE

*1. Scope*

This method was specifically developed for water-soluble phenolic resins that have a relatively high free-formaldehyde (FF) content such as insulation resins. It may also be suitable for other phenolic resins, especially those with a high FF content.

*2. Principle*

2.1 a. The basis for this method is the titration of the hydrochloric acid that is liberated when hydroxylamine hydrochloride reacts with formaldehyde to form formaldoxine:

$$HCHO + NH_2OH{:}HCl \rightarrow CH_2{:}NOH + H_2O + HCl$$

b. Free formaldehyde in phenolic resins is present as monomeric formaldehyde, hemiformals, polyoxymethylene hemiformals, and polyoxymethylene glycols. Monomeric formaldehyde and hemiformals react rapidly with hydroxylamine hydrochloride, but the polymeric forms of formaldehyde must hydrolyze to the monomeric state before they can react. The greater the concentration of free formaldehyde in a resin, the more of that formaldehyde will be in the polymeric form. The hydrolysis of these polymers is catalyzed by hydrogen ions.
2.2 The resin sample being analyzed must contain enough free formaldehyde so that the initial reaction with hydroxylamine hydrochloride will produce sufficient hydrogen ions to catalyze the depolymerization of the polymeric formaldehyde within the time limits of the test method. The sample should contain approximately 0.3 grams free formaldehyde to ensure complete reaction within 5 minutes.

*3. Apparatus*

3.1 Balance, readable to 0.01 g or better.
3.2 pH meter, standardized to pH 4.0 with pH 4.0 buffer and pH 7 with pH 7.0 buffer.
3.3 50-mL burette for 1.0 N sodium hydroxide.
3.4 Magnetic stirrer and stir bars.
3.5 250-mL beaker.
3.6 50-mL graduated cylinder.
3.7 100-mL graduated cylinder.
3.8 Timer.

*4. Reagents*

4.1 Standardized 1.0 N sodium hydroxide solution.
4.2 Hydroxylamine hydrochloride solution, 100 grams per liter, pH adjusted to 4.00.
4.3 Hydrochloric acid solution, 1.0 N and 0.1 N.
4.4 Sodium hydroxide solution, 0.1 N.
4.5 50/50 v/v mixture of distilled water and methyl alcohol.

*5. Procedure*

5.1 Determine the sample size as follows:
a. If the expected FF is greater than 2 percent, go to Part A to determine sample size.
b. If the expected FF is less than 2 percent, go to Part B to determine sample size.
c. Part A: Expected FF ≥ 2 percent.

Grams resin = 60/expected percent FF

i. The following table shows example levels:

| Expected % free formaldehyde | Sample size, grams |
|---|---|
| 2 | 30.0 |
| 5 | 12.0 |
| 8 | 7.5 |
| 10 | 6.0 |
| 12 | 5.0 |

| Expected % free formaldehyde | Sample size, grams |
|---|---|
| 15 | 4.0 |

ii. It is very important to the accuracy of the results that the sample size be chosen correctly. If the milliliters of titrant are less than 15 mL or greater than 30 mL, reestimate the needed sample size and repeat the tests.

d. Part B: Expected FF < 2 percent

Grams resin = 30/expected percent FF

i. The following table shows example levels:

| Expected % free formaldehyde | Sample size, grams |
|---|---|
| 2 | 15 |
| 1 | 30 |
| 0.5 | 60 |

ii. If the milliliters of titrant are less than 5 mL or greater than 30 mL, reestimate the needed sample size and repeat the tests.

5.2 Weigh the resin sample to the nearest 0.01 grams into a 250-mL beaker. Record sample weight.

5.3 Add 100 mL of the methanol/water mixture and stir on a magnetic stirrer. Confirm that the resin has dissolved.

5.4 Adjust the resin/solvent solution to pH 4.0, using the prestandardized pH meter, 1.0 N hydrochloric acid, 0.1 N hydrochloric acid, and 0.1 N sodium hydroxide.

5.5 Add 50 mL of the hydroxylamine hydrochloride solution, measured with a graduated cylinder. Start the timer.

5.6 Stir for 5 minutes. Titrate to pH 4.0 with standardized 1.0 N sodium hydroxide. Record the milliliters of titrant and the normality.

*6. Calculations*

$$\% \text{ FF} = \frac{\text{mL sodium hydroxide} \times \text{normality} \times 3.003}{\text{grams of sample}}$$

*7. Method Precision and Accuracy*

Test values should conform to the following statistical precision:

Variance = 0.005
Standard deviation = 0.07
95% Confidence Interval, for a single determination = 0.2

*8. Author*

This method was prepared by K. K. Tutin and M. L. Foster, Tacoma R&D Laboratory, Georgia-Pacific Resins, Inc. (Principle written by R. R. Conner.)

*9. References*

9.1 GPAM 2221.2.

9.2 PR&C TM 2.035.

9.3 Project Report, Comparison of Free Formaldehyde Procedures, January 1990, K. K. Tutin.

APPENDIX C TO SUBPART NNN OF PART 63—METHOD FOR THE DETERMINATION OF PRODUCT DENSITY

*1. Purpose*

The purpose of this test is to determine the product density of cured blanket insulation. The method is applicable to all cured board and blanket products.

*2. Equipment*

One square foot (12 in. by 12 in.) template, or templates that are multiples of one square foot, for use in cutting insulation samples.

*3. Procedure*

3.1 Obtain a sample at least 30 in. long across the machine width. Sample should be free of dirt or foreign matter.

3.2 Lay out the cutting pattern according to the plant's written procedure for the designated product.

3.2 Cut samples using one square foot (or multiples of one square foot) template.

3.3 Weigh product and obtain area weight ($lb/ft^2$).

3.4 Measure sample thickness.

3.5 Calculate the product density:

Density ($lb/ft^3$) = area weight ($lb/ft^2$)/thickness (ft)

## Subpart OOO—National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins

SOURCE: 65 FR 3290, Jan. 20, 2000, unless otherwise noted.

### § 63.1400 Applicability and designation of affected sources.

(a) *Applicability.* The provisions of this subpart apply to the owner or operator of processes that produce amino/phenolic resins and that are located at a plant site that is a major source as defined in § 63.2.